

## METHOD AND APPARATUS PROVIDING AN AVENUE FOR TERMINAL SERVICE ORGANIZATIONS TO ENLIST CUSTOMERS FOR A WEB-SERVICE

### BACKGROUND OF THE INVENTION

5        Field of the Invention

The present invention relates to avenues by which terminal service organizations can enlist customers for a web-service. Terminal service organizations include any of the following: a funeral home, a retirement community, a hospice, a hospital, a sanitorium, a church, a shrine, a nursing home, a mausoleum, a cemetery, or an assisted living facility. A web-service provides web-service  
10 products based upon instructions from the customer.

Background Information

Today, there are numerous web-site service providers located all over the world. Several of these web-site service providers develop and host memorial web-sites for people based upon a customer request and the payment of a web-site service fee. There are even pet memorial web-site providers.

15      Every day, terminal service organizations aid the dying and those encountering the death of their loved ones. Yet these organizations are unprepared and disinclined to provide web-services to the dying as well as the bereaved mourning the dead.

20      The time of dying is a period of great stress and anguish for many. Communities struggle to express their loss. To remember, cherish, and honor those who have passed. Terminal service organizations do not support the potential of web-site products customized to present these cherished memories in an effective and interactive manner. The best they can provide is usually a piece of stone or metal and a few words, and occasionally, a picture embedded in the stone or metal.

25      Those approaching death often wish to leave recordings about their lives. Today, both terminal service organizations and web-site providers are ill equipped to provide recording equipment, trained interviewers and the editorial expertise needed to perfect those thoughts and words for the future.

There are also serious problems in the current relationship of terminal service organizations and web-site service providers, adversely affecting the bereaved. Terminal service organizations understand grief counseling, flowers, mortuary services, and other, very humanistic, services and products. They have little or no background in web-site development and management.

- 5 Consequently, there are no direct avenues for the bereaved to order such services through terminal service organizations.

There is no economic incentive for terminal service organizations providing such avenues. By way of example, subscription fees for a typical web-site range between twenty to fifty US dollars, whereas a typical funeral costs several thousand dollars.

- 10 Today's memorial and personal web-sites tend to be open to everyone. This is naïve and dangerous from a financial security standpoint. Critical data, such as the maiden name of an individual's mother, are often present. Access to secured information, such as credit information and financial account privileges, often uses this critical data. Communities need secure mechanisms providing members access to personal and/or community web page systems.
- 15 To summarize, what is needed are avenues for terminal service organizations to enlist customers for web-services, which can provide web service products of a quality and timeliness worthy of the memory of those who pass from this life. The community members need to be able to access such web-service products, while protecting the financial security and privacy of the community.

## BRIEF SUMMARY OF THE INVENTION

The invention provides a method and a mechanism for a terminal service organization enlisting a customer for a web-service, including the following. The terminal service organization provides an avenue referring the customer to the web-service. The customer uses the avenue to engage the web-service to provide at least one web-service product creating a web-site revenue for the web-service.

5 The web-site product is customized by at least one instruction from the customer. And the terminal service organization receives an organization revenue based upon the customer using the avenue to create the web-site revenue.

10 The terminal service organization benefits by receiving the organization revenue from the use of the avenue by the customer.

The customer benefits in being able to use the avenue to instruct the web-service to create the web-service products. These web-service products include at least one web-site component. Each web-site component is an instance of a web-site component collection.

15 The web-site component collection includes at least the following: an audio stream, a video stream, an interactive model, a text, a still frame, a web page layout, a security control, a hosting means, a transferring means, and an interactive means for generating at least one of the second web-site components.

20 The hosting means provides mechanisms for hosting at least one of the web-site components. Some of the hosting means provide a community with restricted access mechanisms, which protect the community from invasions to its privacy and potential theft of critical security information.

The transferring means provides a selection of delivery mechanisms for the web site products, supporting a range of delivery times and security options.

25 The interactive means may include providing the recording equipment, trained interviewers and editorial expertise needed to perfect the thoughts and words of the dying, and those remembering the dead, for the future.

The web-site component collection may further include a memorial web page system, a personal web page system, a family web page system, and a community web page system.

The invention includes making any or all of these systems available to the customers enlisted by the terminal service organizations through the web-service. The invention also includes the avenue provided to the customer, the customer instructions, the web-service products, the web-site revenue, and the organization revenue as products of the process of this invention.

#### BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1A shows a business method and mechanism for a terminal service organization enlisting a customer for a web-service;

10 Figure 1B shows a detail of the terminal service organization of Figure 1A;

Figure 2A shows a detail of the web-site component collection of Figure 1A;

Figure 2B shows the web-service product of Figure 1A provided to a means for serving a community;

Figure 2C shows a detail of the community of Figure 2B;

15 Figure 2D shows the means for serving the community of Figure 2B including the web-service product used by at least one local computer system operated by at least one community member;

Figure 2E shows the means for serving the community of Figure 2B including web-site hosting the web-service product accessible only by the community members;

20 Figure 2F shows the means for serving the community of Figure 2B, including local means for hosting the web-service product accessible by the community members;

Figure 3A shows the avenue of Figure 1A including a computer system;

Figure 3B shows a flowchart of the invention's method providing the avenue of Figures 1A and 3A;

Figure 4A shows a detail of Figure 3B identifying the customer;

Figure 4B shows a detail of of Figure 3B creating and sending the customer instruction of Figures 1A and 3A;

Figure 5A shows an instruction collection for a web site component of the web-service product of  
5 Figure 1C;

Figure 5B shows the avenue of Figure 1A at least partly implemented as a request form;

Figure 5C shows the request media collection;

Figure 5D shows several preferred embodiments identifying the terminal service organization when  
the request form is a paper request form;

10 Figure 5E shows a bank account controlled by the terminal service organization receiving a  
monetary transfer of the organization revenue;

Figure 5F shows the terminal service organization receiving a check for the organization revenue;

Figure 6A shows details of the hosting means of Figure 1D;

Figure 6B shows the transfer means collection 720; and

15 Figure 6C shows a preferred request form 400 of Figure 5B.

## DESCRIPTION OF THE PREFERRED EMBODIMENTS

Figure 1A shows a business method and mechanism for a terminal service organization 10 enlisting 12 a customer 30 for a web-service 40. The business method includes the following:

- The terminal service organization 10 provides 12 an avenue 20 to the customer 30 referring 22 to the web-service 40. The avenue 20 identifies 14 the terminal service organization 10 to the web-service 40.
- The customer 30 uses 32 the avenue 20 to engage 22 the web-service 40 to provide 42 at least one web-service product 50 to create 36 a web-site revenue 70 for 72 the web-service 40. The web-service product 50 is customized 62 by at least one instruction 60 from 34 the customer 30.
- The terminal service organization 10 receives 84 an organization revenue 80 based upon 82 the web-site revenue 70 created by the customer 30 using 32 the avenue 20.

The invention includes the avenue 20 provided to the customer 30, the instruction 60, the web-service product 50, the web-site revenue 70, and the organization revenue 80, as products of the invention's process of doing business.

Figure 1B shows the terminal service organization 10 of Figure 1A including at least one of the following: a funeral home 100, a retirement community 102, a hospice 104, a hospital 106, a sanitarium 108, a temple 110, a synagogue 112, a mosque 114, a church 116, a shrine 118, a nursing home 120, a mausoleum 122, a cemetery 124, and an assisted living facility 126.

The web-service product 50 of Figure 1A includes at least one web-site component 150-1, and often, preferably, at least a second web-site component 150-2, as shown in Figure 1C.

The web-site component 150-1 of Figure 1C is preferably an instance of a member of the web-site component collection 200 shown in Figure 1D including, but not limited to, the following: an audio stream 202, a video stream 204, an interactive model 206, a text 208, a still frame 210, a web page layout 212, a security control 214, a hosting means 216 for at least one second web-site component 150-2, a transferring means 218 for at least one of the second web-site components 150-2, and an interactive means 220 for generating at least one of the second web-site components 150-2.

The web-service product **50** may provide a web-site for the customer **30**, another individual, family, or community. Figure **2A** shows the web-site component collection **200** further including, but not limited to, the following: a memorial web page system **230**, a personal web page system **232**, a family web page system **234**, and a community web page system **236**.

- 5 The invention further includes the web-service product **50** provided **92** to a means **90** for serving **94** a community **300** as shown in Figure **2B**.

As used herein, the community **300** of Figure **2B** includes at least one instance of at least one member of the community type collection **320** shown in Figure **2C** comprising: a nuclear family **322**, an extended family **324**, a distributed family **326**, an intentional community **328**, a professional community **330**, a fraternal community **332**, a local community **334**, and a religious community **336**.

The nuclear family **322** of Figure **2C** includes at least two members, often living in close proximity to each other, usually linked by one or more social contracts and/or biological relationships.

As used herein, social contracts include, but are not limited to, acknowledgements of parenthood, child support agreements, marriage agreements, cohabitation agreements, parenting agreements, and/or adoption agreements. These agreements may be explicit or implicit, formal or informal. Specific governments and/or religions may or may not acknowledge such agreements. Irrespective of the acknowledgement of others, the members of these families base their actions upon these agreements.

20 As used herein, biological relationships inherently involve any combination of relationships including, but not limited to, parent to offspring, sibling to sibling, cousin to cousin, nephew/niece to aunt/uncle.

The extended family **324** of Figure **2B** includes members usually linked by one or more social contracts and/or biological relationships. Members of the extended family **324** often live at some distance from at least some of the other members.

The distributed family **326** of Figure **2B** includes a network of families linked by multiple layers of social contracts and/or biological relationships. These linked families may be nuclear and/or extended families.

5 The intentional community **328** of Figure **2B** includes at least two members intentionally creating the community. Intentional community can include cooperatives, which may collectively own and/or lease and/or manage one or more residences. These residences may include apartment buildings, and/or houses. The residences may have residential units for individuals and/or nuclear families. The members of the intentional community may share interests or views, which may include, but are not limited to, hobbies such as golfing, tennis and boating, residential appearance as 10 evidenced in home owner association guidelines, life style, ecological, philosophical, religious, spiritual, retirement interests and/or activities, as well as recovery from abuse and/or dependencies.

15 The professional community **330** of Figure **2B** includes at least two members creating the community based upon a profession. Universities and the American Mathematical Society are both examples of professional communities. Businesses with offices in separate locations are another example of a professional community.

The fraternal community **332** of Figure **2B** includes members sharing a fraternal bond. The fraternities found on most college campuses in the U.S., as well as organizations such as the Elks and the Odd Fellows are all examples of fraternal communities. Some fraternal communities, such as the Boy Scouts and the Masonic Order are international in membership.

20 The local community **334** of Figure **2B** includes members who reside or are interested in a geographic locale. The community members may be part time residents, regular vacation time residents, permanent residents, land holders, renters, or local service providers for those members and properties in the locale. Local communities also include schools, factories, shops, and most businesses situated in the locale.

25 A religious community **336** of Figure **2B** includes at least two members sharing the basic beliefs of a religion. Religion, as used herein, will refer to a collection of beliefs. Examples of religious communities include the Catholic, Mormon, Islam, Buddhism, and Judaism communities.

Figure 2D shows the means 90 for serving the community 300, of Figure 2B, including the web-service product 50 used 92 by at least one local computer system 98 operated 94 by at least one community member 302.

As used herein, the web-service products of the invention, used by a local computer system and/or a  
5 local server, are imperceptible to local area networks in their physical vicinity. Local area networks include, but are not limited to, any combination of wireless networks and wireline networks. Examples of a local computer system include, but are not limited to, computer systems without network interfaces. Local computer systems and local servers are fundamentally unable to transmit critical information such as the maiden name of someone's mother. Community members who are  
10 physically near such systems may access the web-service product(s).

Local computer systems and/or local servers often operate outside an office setting. These systems are preferably packaged to fit in an individual's, family's or community's living, recreational, entertainment, or meeting place(s). The packaging may support, but is not limited to, standalone units, wall mounted units, and/or units hung from a ceiling. These systems may have internal power  
15 sources and/or use external power.

Figure 2E shows the means 90 for serving the community 300, of Figure 2B, including web-site 148 hosting 92 the web-service product 50 accessible 94 only by the community members 302.

Figure 2F shows the means 90 for serving the community 300, of Figure 2B, including local means for 96 hosting 92 the web-service product 50 accessible 94 by the community members 302.

20 Figure 3A shows the avenue 20 of Figure 1A including a computer system 500.

- The computer system 500 identifies 32 the customer 30 and identifies 14 the terminal service organization 10 to 22 the web-service 40, and provides 64 the customer instruction 50 to 22 the web-service 40.
- The communications between the customer 30 and computer system 500 may include, but are not limited to,
  - interactions involving visual and audio displays presented to the customer, as well as,

- customer hand based events and acoustic events recognized by the computer **502**. The hand events include, but are not limited to, pointing device events, touch based events, and gesture events.
- Communications **22** between the web-service **40** and computer system **500** may include, but are not limited to,
  - Client-server, Business-to-Business, and/or Peer-to-Peer network communications, where the communications path **22** may include wireline and/or wireless physical transport layers, and possibly multiple communication protocols.
- The computer system **500** preferably, includes, but is not limited to,
  - A program system **1000** including at least one program step residing in a memory **506** accessibly coupled **504** to a computer **502**.
  - A web browser **900** and a web page **910**, typically residing in memory **506**.
  - A price **510** for the instruction **60**, and
  - The computer **502** receiving a confirmation **520** from the customer **30** to pay the web-service **40** providing **42** the web-service product **50** based upon the instructions **60** at price **510**.
- However, various embodiments of the invention may include either web browser **900** and/or web page **910** being distinct elements within the computer system **500**.
  - Either the web browser and/or web page may be received **22** from the web-service **40**.
  - Alternatively, the computer system **500** may include either web browser **900** and/or web page **910** embedded in the computer system on an essentially permanent basis.
- The customer **30** preferably interacts with at least one web page **910** to implement the method of the invention using the avenue **20**.
  - The interaction occurs through the operation of the computer **502** directed by **504** the program system **1000**, the web browser **900**, and the web page **910**.
  - For the sake of simplicity, the discussion of the method of using computer system **500** as the avenue **20** will be in terms of program steps in program system **1000**.

A computer as used herein will include, but is not limited to at least one instance of a member of the collection comprising an instruction processor, an inferential engine, a neural network, and a finite state machine. The instruction processor includes at least one instruction processing element and at

least one data processing element, each data processing element controlled by at least one instruction processing element.

The following figures include flowcharts of at least one method of the invention possessing arrows with reference numbers. These arrows signify the flow of control and sometimes data. The arrows support implementations including at least one program step or program thread executing upon a computer, inferential links in an inferential engine, state transitions in a finite state machine, and learned responses within a neural network.

The step of starting a flowchart refers to at least one of the following.

- Entering a subroutine in a macro instruction sequence in a computer.
- Entering a deeper node of an inferential graph.
- Directing a state transition in a finite state machine, possibly while pushing a return state.
- Triggering at least one neuron in a neural network.

The step of termination in a flowchart refers to at least one of the following.

- Return from a subroutine.
- Traversal to a higher node in an inferential graph.
- Popping of a previously stored state in a finite state machine.
- Return to dormancy of the firing neurons of the neural network.

Alternatively, a source step of an arrow pointing to termination, may be the only step represented in the flowchart. Alternatively, one or more of the other steps may execute, either sequentially or concurrently, to implement the method of the invention.

A step in a flowchart refers to at least one of the following.

- The instruction processor at least partly implements the step by responding to the program steps to control the data execution unit.
- The inferential engine at least partly implements the step by responding to the program steps as nodes and transitions within an inferential graph based upon and modifying an inference database.

- The neural network at least partly implements the step by responding to the program steps as stimulus.
  - The finite state machine at least partly implements the step by responding to the program steps through at least one of a state and a state transition.
- 5     The memory referred to herein includes at least one instance of at least one member of a memory type collection comprising: a non-volatile memory, and a volatile memory. A non-volatile memory includes at least one memory state retained without applying a power source to the non-volatile memory. The volatile memory includes at least one memory state lost without applying the power source to the volatile memory.
- 10    Figure 3B shows a flowchart of the invention's method 1000 providing the avenue 20 of Figures 1A and 3A.
  - Step 1012 supports indicating 14 the terminal service organization 10 to 22 the web-service 40.
  - Step 1022 supports identifying the customer 30 to 22 the web-service 40.
  - Step 1032 supports providing the customer instruction 60 to the web-service 40.
- 15    Figure 4A shows a detail of step 1022 of Figure 3B identifying the customer 30. Step 1052 supports the customer 30 determining the mechanism for providing 36 the revenue 70 to 72 the web-service 40 as shown in Figure 1A.
- Figure 4B shows a detail of step 1032 of Figure 3B creating and sending the customer instruction 60 of Figure 1A and 3A.
- 20
  - Step 1072 supports providing the customer 30 with a menu containing at least one instruction option.
  - Step 1082 supports the customer 30 indicating at least one instruction option to create a customer instruction 60.
  - Step 1092 supports sending the customer instruction 60 to the web-service 40.
- 25    The instruction 60 of Figure 1A includes at least one member of an instruction collection 350 shown in Figure 5A for a web site component 150 of web-service product 50 of Figure 1C. The instruction collection 350 includes, but is not limited to, the following:

- Add 352 a web site component 150.
- Remove 354 the web site component 150.
- Alter 356 the web site component 150.

Aspects of the invention include the avenue 20 of Figure 1A at least partly implemented as a request

5 form 400, as shown in Figure 5B. The request form 400 preferably further includes:

- Means 402 for identifying the customer 30 to the web-service 40,
- Means 406 for providing the instruction 60 to the web-service 40, and
- Means 408 for identifying the terminal service organization 10 perceptible by at least the web-service 40.

10 The request form 400 is a member of the request media collection 410 comprising: a computer accessible request form 412, a paper request form 416, and an audio accessible request form 418, as shown in Figure 5C.

Figure 5D shows several preferred embodiments of means 408 identifying the terminal service organization 10 when the request form 400 is a paper request form 416. These include at least one

15 of the following:

- A bar code marking 420 identifying the terminal service organization 10,
- A background marking 422 identifying the terminal service organization 10, and
- A foreground marking 426 identifying the terminal service organization 10.

In certain embodiments of the invention, foreground markings 426 may be preferred. A terminal

20 service organization may choose to be identified with a symbol such as a coat of arms, banner, insignia, logo and/or trademark, which is presented with essentially no overlay. A background marking 422 may include a watermark and/or border pattern.

Various combinations of markings shown in Figure 5D may identify more than one terminal service organization 10 involved in enlisting the customer 30 of Figure 1A.

25 • By way of example, a foreground marking may identify a Catholic diocese.  
• A parish church within the diocese may be identified by any of a second foreground marking, a background marking or a bar code marking.

- A hospice run by the parish church may be identified by any of a third foreground marking, a second background marking, or second bar code marking.
- In this example, any combination of the diocese, parish church and hospice may receive the organization revenue **80** of Figure **1A**.

- 5 The means for the terminal service organization **10** receiving **84** the organization revenue **80** of Figure **1A** preferably includes at least one of the following in many aspects of the invention:
- Means for a bank account **170** controlled **172** by the terminal service organization **10** receiving **174** a monetary transfer of the organization revenue **80** shown in Figure **5E**, and
  - Means for the terminal service organization **10** receiving **182** a check **180** for **184** the organization revenue **80** shown in Figure **5F**.

The organization revenue **80** of Figure **1A**, may be based upon multiple web-site revenues **70**, which may further be based upon any combination of the following:

- More than one customer **30**, and/or
- More than one avenue **20**, and/or
- More than one web-service product **50** provided by the web-service **40**.

The hosting means **216** of Figure **1D**, may include any of the following members of the hosting means collection **700**, in Figure **6A**:

- a host web-site **702** providing at least the second web-site component **150-2**,
- a network capable server **704** hosting the host web-site **702**,
- a local server **706** hosting the host web-site **702**, and/or
- a local computer system **708** providing at least the second web-site component **150-2**.

The transferring means **218** of Figure **1D** may include any of the transfer means collection **720** shown in Figure **6B**:

- A removable memory device **722** provided by the web-service **40** containing at least the second web-site component **150-2** as in Figure **1C**. Removable memory devices **722** include, but are not limited to CD-ROMs, CD-RAMs, DVD ROM and RAMs, as well as removable disk drives in all form factors, including but not limited to, Compact Flash, and PCMCIA.

- A download **724** provided by the web-service **40** containing at least the second web-site component **150-2**. The download may be in the form of sending a communication such as an email, a live update, and/or require a web browser to initiate and/or perform.
- A shipping means **726** for the hosting means **216** as in Figures **1D** and **6A**, and
- 5 • a shipping means **728** for the removable device **722**.

Figure **6C** shows a preferred request form **400** of Figure **5B**, including the following,

- Means **402** for identifying the customer **30** to the web-service **40**, further includes
  - A name field **402-1**,
  - An address field **402-2**, and
  - A way for the customer to determine the payment mechanism **402-3**.
- 10 • Instruction menu **406** providing the instruction **60**, including the following:
  - Instruction commands add **800**, remove **802**, and alter **804** for one or more of the following:
    - an audio stream **202**, a video stream **204**, an interactive model **206**, a text **208**, a still frame **210**, a web page layout **212**, and a security control **214**.
  - A total price **510** for the instruction **60**.
  - When the request form **400** is a computer accessible request form **418**, it preferably includes a View All Instructions **60** button or activator.
  - A means **520** for the customer **30** to confirm paying **36** the price **510** to create **36** the web-site revenue **70**.
  - 20 • The web-site revenue **70** is, based at least partly upon the web-service **40** providing the web-service products **50** customized by the instructions **60**.
  - A hosting means menu **216**, preferably supporting the customer **30** selecting one or more of the following:
    - a host web-site **702** providing at least the second web-site component **150-2**,
    - a network capable server **704** hosting the host web-site **702**,
    - a local server **706** hosting the host web-site **702**, and/or
    - a local computer system **708** providing at least the second web-site component **150-2**.
  - 25 • A transferring means menu **218** preferably supporting the customer **30** selecting one or more of the following:

- a removable memory device 722 provided by the web-service 40 containing at least the second web-site component 150-2 as in Figure 1C,
- a download 724 provided by the web-service 40 containing at least the second web-site component 150-2,
- 5     • a shipping means 726 for the hosting means 216 as in Figures 1D and 6A, and  
       • a shipping means 728 for the removable device 722.
- An interactive means menu 220, which preferably includes the following:
  - a stream generation component including at least generating an audio stream 202 and/or generating a video stream 204,
  - 10    • an interviewer component 230, including support for the customer 30 selecting none 232, minimal 234, or maximal 236 interviewer support,
  - preferably, the menu 220 includes a language component 250, including a first language 252, for example, English, a second language 254, Spanish, and another language 256 in which the interviewer interacts, and
  - an editor component 260, including none 262, minimal editing 264, maximal editing 266, and repeated editing 268.
- Means 408 for identifying the terminal service organization 10.

In certain aspects of the invention, the stream generation may further include an option to generate a text as a product of the interactive means process performed by the web-service 40.

- 20 When the request form 400 of Figure 6C is a paper request form 416, the means 520 for the customer 30 to confirm paying 36 the price 510 to create 36 the web-site revenue 70 may include a signature area. When the request form 400 is a computer accessible request form 412, it may include a button for the customer 30 to activate. For example, activation may entail the customer 30 pushing the button, or pointing at the button and clicking a mouse. Alternatively, activation may involve the  
25 customer 30 making sounds.

The request form 400 of Figure 6C, is a sketch of preferred avenues 20 by which a customer 30 may instruct 60 a web-service 40 provide 42 web-service products 50. The avenue 20 identifies 406 the

terminal service organization **10**, which enlisted **12** the customer **30**. The avenue **20** also identifies **402** the customer **30**, further providing a means **402-3** for determining the payment mechanism.

The details of instructing the web-service **40**, for adding **800**, removing **802**, or altering **804** web-site components **202** to **214** will vary depending upon the request media collection **410** member embodied.

- 5 • When the request form **400** is a computer accessible request form **412**, adding **800**, removing **802**, or altering **804** web-site components **202** to **214** may trigger hyperlinks to dialogues for the customer providing the specifics of the instruction. These may include selection of files containing audio streams, video streams, still frames, and so on. In certain embodiments of the invention, inserting still frames into a scanner may be part of building the instructions.
- 10 • When the request form **400** is a paper request form **416**, the generation of instructions will vary. Attachments for still frames on computer-readable media or on paper are preferred. Attachments for video and audio streams on computer-readable media, various forms of magnetic tape devices, and possibly phonographic recordings may be preferred.
- 15 • When the request form **400** is an audio accessible request form **418**, the receipt of the attachments will preferably be arranged as a delivery **62** to the web-service **40** to complete the instructions **60**.

The preceding embodiments provide examples of the invention and are not meant to constrain the scope of the following claims.